

# Sequestration Training and Education Program (STEP): Development and Progress

Regional Carbon Sequestration Partnerships  
Annual Review Meeting  
October 5-7, 2010

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# STEP Objectives



- Create regional technology training center
- Disseminate CCS technology and information gained through MGSC and other projects
- Provide education and training opportunities
- Work with academic institutions, State and Regional job development programs
- Partner with professional organizations and regional experts
- Leverage existing opportunities and provide stand-alone training



# Vision Statement

To be a high-performing organization expert in providing hands-on learning experiences and information sharing on cutting-edge climate mitigation technology, including carbon capture and storage, through exceptional outreach and education programs, and which is characterized by diverse, high-quality, high-value learning opportunities.



# Mission Statement

To ensure the highest quality, best-value educational experience through regional, national and international exchange programs, and be a recognized leader in the design and implementation of CCS curricula and educational products.



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# STEP Builds on Current MGSC Activities

- Trusted Information Source
- Local, Regional, National, and International reputation
  - Decatur Public Events
  - AAPG Short Courses
  - IEA GHG Summer School 2011
- Providing Information:
  - Invited presentations
  - Technical presentations
  - Model presentations
  - Teacher workshops
- Expanding on Foundations
  - Image database
  - Building video library
  - Time-lapse imagery



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# STEP Transfers Technology from Project Experience

- Midwest Geological Sequestration Consortium
  - Enhanced Oil Recovery
  - Coal Bed Methane
  - The Illinois Basin – Decatur Project
- Taylorville Energy Center
- ADM Industrial Sources Project
- Sequestration Potential of the Cambro-Ordovician Strata of the Illinois and Michigan Basins



# Connecting Science, Society, and Solutions: Drawing on Expertise

- Existing and newly developing projects
  - Illinois Basin – Decatur Phase III Demonstration
    - Visitors center on-site
  - ADM Industrial Sources
    - Permanent education facility for Richland CC
    - Joint funding for STEP and RCC education programs
- Geophysical surveys
- Well construction
- Monitoring, verification, and accounting
- Permit preparation
- Communications
- Project design, management, and operation



# STEP Builds on Existing and New Partnerships

- Midwest Geological Sequestration Consortium Project Advisory Group
- Illinois, Indiana, Kentucky Geological Surveys
- US EPA Region V
- Schlumberger Carbon Services
- University of Illinois
- Regional Community Colleges
- IL Department of Commerce and Economic Opportunity
- Regional Carbon Sequestration Partnerships
- Technology Transfer Centers
  - University of Washington Extension multi-university program





# Scope of Work



- Three year grant
- Project management and planning
  - business and financial development
- Creation of sponsorship program
- Development of short courses on CCS technology
- Event implementation and training
- Communication and information dissemination



## Phase 1 – Development (Nov 2009 to Nov 2010)

- Implement project management plan
- Appoint advisory board
- Sponsorship program
- Research and develop course topic list
- Create schedule for stand-alone and partner events
- Work with CCS experts to develop course material
- Develop partnerships with professional organizations and other resources
- Create monitoring program
- Establish newsletter, website, and e-mail tech alert system
- Establish response system for technical inquiries

## Phase 2 – Implementation (Nov 2010 to Nov 2012)

- Put strategic plan into place
- Stand-alone training series
  - Modular short courses
  - Two one-week events hosted in Champaign, IL
- Sponsor brown bag seminars
- Sponsor lecture series
- Co-sponsor CCS training events
- Host higher-education conference
- Seek opportunities for partnering



# Task 1: Project Management and Planning



1. Implementation of project management plan\*
2. Monitor regional CCS project performance
3. Implement strategic plan\*
4. Participate in regional STTC network
5. Provide contract deliverables to DOE
6. Maintain financial and accounting systems

\*Completed or underway

\*Remains to be completed



# Task 2: Project Business and Financial Development

1. **Develop and implement training center**
  - Create diversified business model
  - Self-sustaining at contract period end
2. Develop organized sponsorship program
3. **Establish Advisory Board**
4. Establish list of revenue generating products
5. Develop and implement marketing strategy





## Task 3: Project Development of Short Courses on CCS Technology

1. Identify topics for short course development
  - Consult AB
  - Conduct survey identify topics and training needs
  - Coordinate with other training centers and organizations
2. Work with CCS experts to develop courses
3. Provide Professional Development Units (PDUs) and Continuing Education Unit (CEUs)





## Task 4: Event Implementation and Training



1. Participate in co-sponsored training events
2. Organize, prioritize, and participate in CCS events
  - Develop unique training short courses, lecture series, brown-bag seminars, workshops, and other products as identified
3. Develop and hold higher education-oriented event
  - Hosting IEA-GHG 2011 Summer School
  - 60 graduate students from around world



## Task 5: Communication and Information Dissemination



1. Publish training newsletter
2. [Develop training website](#)
3. Provide quarterly e-mail alerts
4. Develop inquiry response system



# Progress Update

- Project Management Plan submitted
- Advisory Board Established – first meeting August 5-6, 2010
- STEP Branding complete
- STEP Website complete – [www.sequestration.org/step](http://www.sequestration.org/step)
- STEP Technology Training Specialist started October 1, 2010
- Events
  - Hosted Sequestration 101 training event for Taylorville Energy Center permit and land acquisition team (May 27, 2010)
  - Instructors participated IEA-GHG 2010 Summer School Svalbard, Norway
  - Co-hosting CCS for Regulators Web seminar with World Resources Institute (planned October)
  - Guest Lecture SWP CCS Training Program (November 10, 2010)
  - Co-sponsoring International Comparison Study Workshop (January, 2011)
  - Hosting IEA-GHG 2011 Summer School (July 18-25, 2011)



# IEA-GHG CCS Summer School 2011

- Host 60 select graduate students from around the world (27 countries, over 200 applications in 2010)
- One week intensive CCS training and mentoring experience
- Engages early career scientists in multi-disciplinary CCS education
- Sponsorship opportunities
- Information coming soon to [www.sequestration.org/step](http://www.sequestration.org/step)

# HQ Milestone Progress

HQ Milestone	Planned Completion Date	Actual Completion Date
Project Kick-off Meeting	3/31/10	11/18/09
Educational program instituted by identifying potential participants and completing a training schedule	6/30/10	6/21/10
Complete training curriculum developed for first set of classes	9/30/10	5/27/10
Semi-Annual Progress Report (Quarterly report ending June 30, 2010)	9/30/10	07/30/10
Complete first classes for regional sequestration technology training	12/31/10	
Trainers visit one field site	12/31/10	
Yearly Review Meeting	3/31/11	



# Next STEPs

- Market analysis
- Continued course development
- Communication and information dissemination framework
- Sponsorship program
- Event planning







by the Midwest Geological  
Sequestration Consortium

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